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THE OWNERSHIP OF SMALL PRIVATE FOREST-LAND HOLDINGS IN 23 NEW ENGLAND TOWNS

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Foreword

Much of the forest land in New England, as elsewhere in the United States, is in small private holdings. How to get these small holdings under reasonably good forest management so that they can better contribute to the country's need for a high sustained yield of good timber products is one of forestry's big problems.

What is the occupational status of these owners of small forest holdings in New England? Why do they hold forest lands? To what extent is financial returns from harvest cuttings a factor? Some of the answers to these and other questions are found in this report. Federal, state, and private agencies and individuals concerned with developing programs that will come to grips with the problem of getting better forestry practices on small holdings should find the results of this study of interest.

The study reported in this Station paper was initiated in July 1948 as a project sponsored jointly by the Harvard University Seminar in Agriculture, Forestry and Land-Use Policy; the Northeastern Forest Experiment Station; and the Federal Reserve Bank of Boston. The field work was done by Solon Barraclough under the supervision of Dr. John D. Black of Harvard University and James C. Rettie, member of the Station's staff and co-author of the paper.

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NORTHEASTERN FOREST EXPERIMENT STATION

INTRODUCTION

Forest land unquestionably is New England's most extensive natural resource. It occupies 77 percent of the region's total land area. It provides the attractive power that draws large numbers of people to the New England countryside for summer and winter recreation and for permanent residence. Thus a large amount of money earned elsewhere finds its way into thousands of New England communities and helps to support standards of living that would not otherwise be possible.

This forest resource has other important values. Well-protected forest cover on the hills and mountains is capable of holding precipitation, as it falls in rain or snow, and of feeding it gradually into streams and underground water-bearing structures. This influence of the forests helps to reduce the danger of floods, and to prevent the erosion of upland soils. Without such cover on the watersheds, lakes and reservoirs would rapidly fill up with silt. The forest cover also helps to maintain streamflow during periods of little precipitation.

The timber that grows on New England's forest lands is raw material for several thousand business enterprises scattered throughout the region--enterprises both large and small. A conservative estimate of the annual value of New England's timber harvest (on the stump, before any other values are added) is $25 million.

Despite the great value of this timber resource in New England, there has been little concern about the condition of these timber-producing lands. Why? An adequate answer to this question would require some rather extensive studies that have not yet been undertaken. However, it is possible to throw some light on the situation by making a case-study of the ownership of these lands in a limited number of areas.

The small owner is predominant in New England. Approximately 57 percent of New England's forest land is in private holdings smaller than 5,000 acres. On these lands, only about 6 percent showed evidence in 1945 of timber-cutting practices that can be called good.[1] The rest of it gets only fair or poor treatment. Certainly the personal interests and the economic position of the small forest-land owner have a vital bearing on the general problem of improving the management of New England's forest resource.

But first, what is a "forest-land owner"?

You often hear references to the "forest-land owner" as though he were some special variety of mankind who has interests that are purely financial. This is a serious handicap to much of the thinking about forest problems. What we really need is a lot more information about who our forest-land owners really are. What are their occupational interests? How much forest land is held by persons who are in the business of processing forest products? How much of it is held by persons who operate commercial farms on which woodland acreage is an integral part of the enterprise? How

[1] HARPER, V. L., AND RETTIE, JAMES C. THE MANAGEMENT STATUS OF FOREST LANDS IN THE UNITED STATES. (REPORT 3 FROM A REAPPRAISAL OF THE FOREST SITUATION.) U. S. FOREST SERVICE. 29 PP., ILLUS. WASHINGTON, D. C. 1946.

much of it is held by persons who make their livings in business or in the professions and thus have limited time or facilities to devote to their forest land? What induces people to acquire and hold small forest properties? How much of the forest land is held for purposes other than timber values?

These are some of the important questions that should be answered in order to guide the development of forest programs.

SCOPE AND METHOD OF THE STUDY

This study was designed primarily to obtain information about the owners of small forest holdings--who they are, how they earn their livings, their reasons for owning forest land, and so on.[2]

Limited time and staff made it necessary to confine the field study to that which could be done by one man in about 5 months. It was thus possible to cover only 23 towns.[3] These were fairly well distributed throughout the area of small woodland holdings. This is the zone between the large extensive forests on the one hand, and areas of cultivated agricultural land on the other. (Rather large blocks of New England's land area classed as urban or "rurban" were excluded from the study.) The locations of the 23 towns in relation to the extensive forests, the strictly agricultural lands, and the urbanized areas are shown in figure 1.

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[2] No attempt was made to relate owner's status or attitude to forest-management practices. Desirable as that might be, it was not possible to do it with the time and facilities that were available for the study.

[3] The subcounty division of local government in all the New England States is called the 'town.' This corresponds with what is called the 'township' in some other States. Readers not acquainted with the New England meaning of the word 'town' should not confuse it with the small municipality that is called a 'town' in other regions.

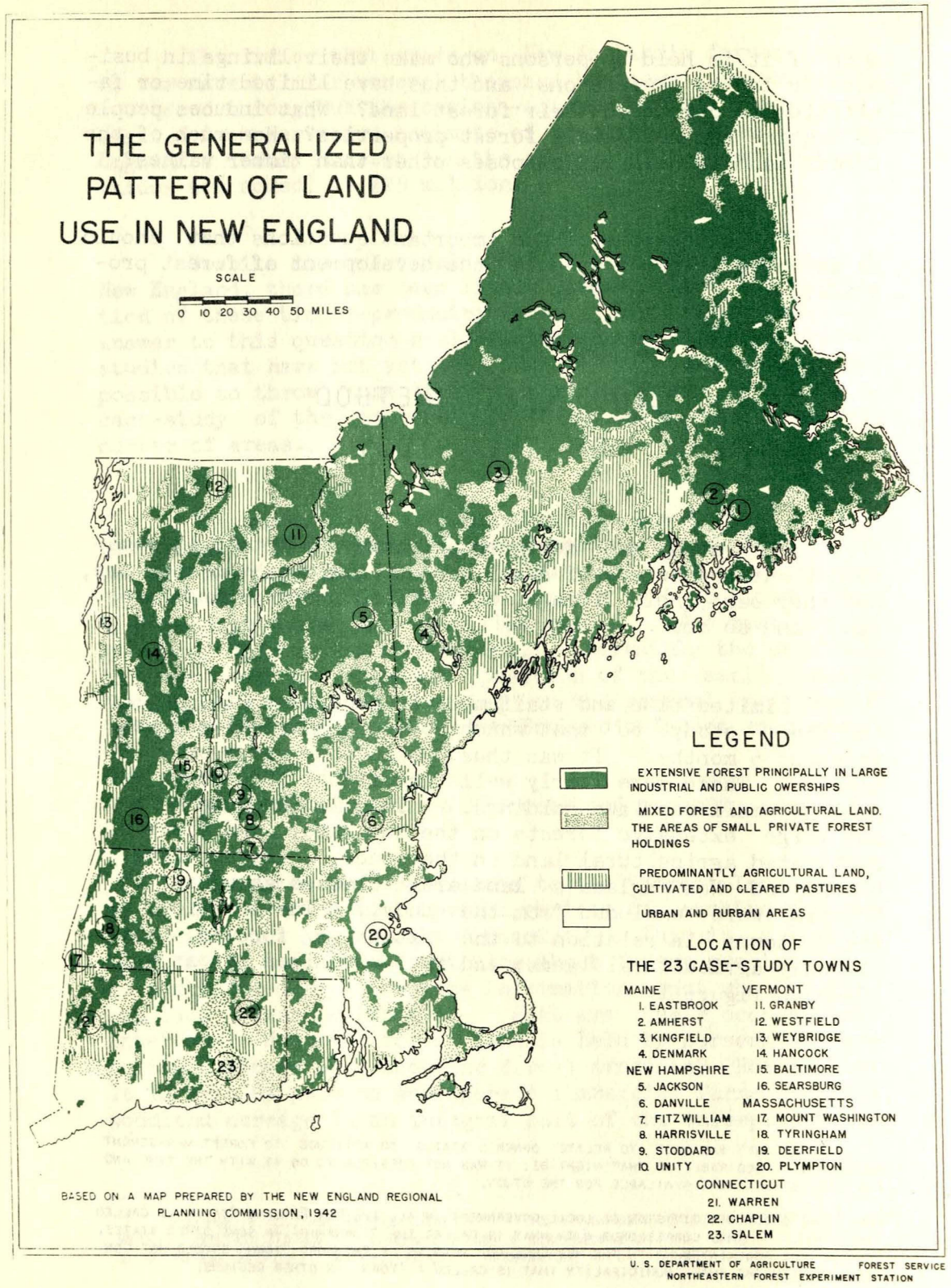

Figure 1.--Location of the 23 towns covered in the study.

The town was chosen as the basic unit for the study be-because, in New England, it is the primary subdivision of local government. Most of the real property is assessed for taxation purposes by the town assessor. The town tax records, therefore, constitute the most accessible and up-to-date public record of private land ownership.

In every town there is an assessor or experienced selectman who is personally familiar with most of the individual property units. By utilizing this source of information, it was possible to exclude from the study all those properties that contain less than 10 acres of forest land.

This was done because holdings as small as this are not likely to be commercially operable as independent units. If such a holding happens to be part of a commercial farm, it probably supplies the farm with fuel wood, fence posts, and some other materials for home consumption, with little or nothing left over for sale. The area of forest land in properties that contain less than 10 forest land acres amounts to less than 2 percent of the total forest land in small holdings. Therefore, it has limited significance anyway.

The 23 towns were selected to give a representation of different forest types, different kinds of farming, and different kinds of rural economy. These included areas primarily agricultural, areas heavily dependent upon income from summer residents and recreational visitors, areas from which people commute to jobs in some nearby area, and areas highly dependent upon local wood-processing plants. No towns with insignificant woodland area were included (table 1).

The name and address of each owner of 10 acres or more of forest land in the town was taken from the tax rolls. By means of interviews with town assessors, selectmen, and long-time residents, the tax-record information was expanded to include occupation of the owner, his approximate age, acres of forest land in the property, apparent purposes of the owner in holding the forest land. A total of 2,106 owners, holding 278,041 acres of forest land, were found in these 23 towns.

A questionnaire was then sent by mail to each one of these 2,106 owners of forest land. This requested informa-

Table 1.--Acreage of private forest land[1] as percent of total land area of the 23 New England towns

Town	Forest land	Town	Forest land
	Percent		Percent
Connecticut		New Hampshire	
Salem	39	Stoddard	83
Chaplin	92	Danville	68
Warren	67	Jackson	22
		Harrisville-Unity	76
Maine		Fitzwilliam	80
Denmark	70		
Kingfield	81	Vermont	
Eastbrook	58	Hancock	32
Amherst	70	Granby	96
		Westfield	65
Massachusetts		Weybridge	20
		Baltimore	50
Plympton	58	Searsburg	49
Deerfield	20		
Tyringham	85	Average	62
Mount Washington	74		

[1]In holdings that contain 10 or more acres of forest land.

tion as to how and when the owner acquired his forest land, his principal reasons for holding it, his present occupation, whether or not forest products were harvested from the land within the past 10 years, expectation of such harvest from the forest land in the next 10 years, and so forth. Out of the 2,106 owners to whom questionnaires were sent, replies were received from 674 owners, or 31 percent.

Partly as a check upon the information received from the questionnaire respondents, but also to shed further light upon individual differences in owner attitudes, a further random subsample of 50 owners was taken. These were interviewed personally.

The main object of this was to get first-hand impressions that would aid in the interpretation of the survey data. Out of the 50 interviews that were conducted, 32 were with owners who had not responded to the questionnaire.

HOW THE PRESENT OWNERS CAME INTO POSSESSION OF FOREST LANDS

The means by which private owners come into possession of small holdings of forest land has considerable significance. If a man lays out hard cash to purchase land, he presumably expects to derive some kind of benefit from his acquisition. If, on the other hand, the land comes to him by inheritance or by gift, he may be content to retain passive ownership so long as the tax burden is reasonably bearable and there is some promise that the property will yield income or be salable at a later time.

The questionnaire sent to all the forest-land owners asked for an indication of the means by which the land was acquired. Answers were received from 674 out of the 2,106 owners. The distribution of owners and of acreage held, according to the means by which the land was acquired, is summarized as follows:

Acquisition by--	Percent of owners	Percent of acreage held
Purchase	74.1	74.1
Inheritance	20.0	21.6
Gift	4.5	.7
Foreclosure of mortgage	.8	3.4
Some other means	.6	.2

The number who acquired their land by purchase no doubt includes a few persons who originally inherited an undivided share in a property and subsequently bought the equity of other heirs. However, this factor is probably of minor importance. The bold fact is that approximately three-fourths of the owners and three-fourths of the land acreage fall in the acquisition-by-purchase category. Practically all the rest of the owners (24.5 percent) acquired their land by inheritance or by gift.

There is probably no clear dividing line between these two. Some people prefer to transfer property by gift rather than to bequeath it to their heirs, who would not otherwise gain possession until after the donor had died. The marked disparity between the percentage of owners who had obtained their land by gift (4.5 percent) and the acreage involved (0.7 percent) suggests that lands transferred by gift are usually in very small holdings. Transfer of lands through foreclosure of mortgages, on the other hand, is more likely to involve larger holdings.

LENGTH OF TIME PRESENT OWNERS HAVE HELD FOREST LANDS

While it is true that timber is a crop, it is not a crop that can be harvested from every part of every acre every year. The time between harvest cuttings on a small forest property depends largely upon the intensity of silviculture that is being applied. A partial cutting (either by selected individual trees or by blocks of mature trees) every year, or at frequent intervals, is practical on areas where growing stock is adequate and vigorous; but unfortunately, on much of the small forest holdings in New England, these conditions do not occur at present. Under the prevailing practices it is necessary to wait 20, 30, 40, or even 50 years between harvest cuttings.

Lands that are constantly changing hands are not likely to get much attention from the forester's standpoint. Therefore, it is important to know something about the percentage of forest land in small holdings that is in fairly stable ownership and the percentage that changes hands rather often.

Adequate information of this kind would involve further specific studies. However, it was possible in this study to obtain a rough indication of the length of time that the present owners have been holding their forest land. This information was obtained by asking each present owner to indicate the period in which he first acquired forest land in New England. A response was obtained from 626 owners, with results that are summarized as follows:

Land first acquired in--	Percent of owners	Percent of acreage held at present
1945-48	22.4	13.3
1940-44	19.2	15.5
1930-39	25.4	23.7
1918-29	17.4	16.6
Before 1918	15.6	30.9

Stated in another way, it appears that one-third of the present owners began to acquire their present holdings some 20 or more years ago. This group of owners now holds almost half the total acreage. At the other extreme are 42 percent of the present owners who began to acquire forest lands within the last 10 years. This group now holds 29 percent of the total acreage.

More than half of the total forest acreage in small holdings in these 23 towns is owned by persons who have been holding such property for less than 20 years. This fact, of course, points to one of the fundamental problems encountered in the development of programs for promoting better forestry. Changes in the ownership of timber lands often bring with them strong temptations to liquidate the timber values.

OCCUPATIONAL STATUS OF PRESENT OWNERS

Information on the occupational status of the forest-land owners in these 23 towns was drawn from two sources: the town assessor or selectman who supplied additional information when data were being taken from the town tax rolls, and the questionnaires that were returned. It was thus possible to check the knowledge of the assessor against that reported by the questionnaire respondents.

The indications are that the assessors are well informed about the occupations of the landowners in their town. Of the 674 questionnaire respondents who answered this question, 102 classified themselves as farmers: the town asses-

sors had listed 98 of these as farmers. Those who classed themselves as business and professional people numbered 204: the assessors had put 191 of these in that class. The number who claimed to be laborers or clerical persons added up to 114: the town assessors had put 120 in that category. The greatest discrepancy occurred with respect to housewives. Those listing themselves in this occupational status numbered 100: the assessors had listed only 72 owners as housewives. Actually these differences are not serious.

The distribution of the forest-land owners and forest-land acreage by owner's principal occupation is shown in table 2 and figure 2. The list is arranged in descending order according to the acreage of forest land owned.

Table 2.--Forest-land acreage held by various occupational groups in the 23 New England towns

Occupational group	Owners	Acreage owned	Average size of holding.
	Number	Acres	Acres
Owners of wood-using plants	79	65,734	832
Business-professional persons	383	51,736	135
Full-time farmers	396	32,561	82
Retired persons	214	26,648	125
Laborers-clerical persons	374	23,418	63
Housewives	209	16,859	81
Clubs and institutions	13	9,432	726
Public utilities	8	8,972	1,122
Dealers in forest land	60	8,824	147
Unsettled estates	67	7,115	106
Owners of recreational business	37	5,158	139
Students	9	1,047	116
Banks and other financial units	6	1,077	180
Other industrial establishments	7	587	84
Occupation unknown	244	18,873	77
Total	2,106	278,041	132

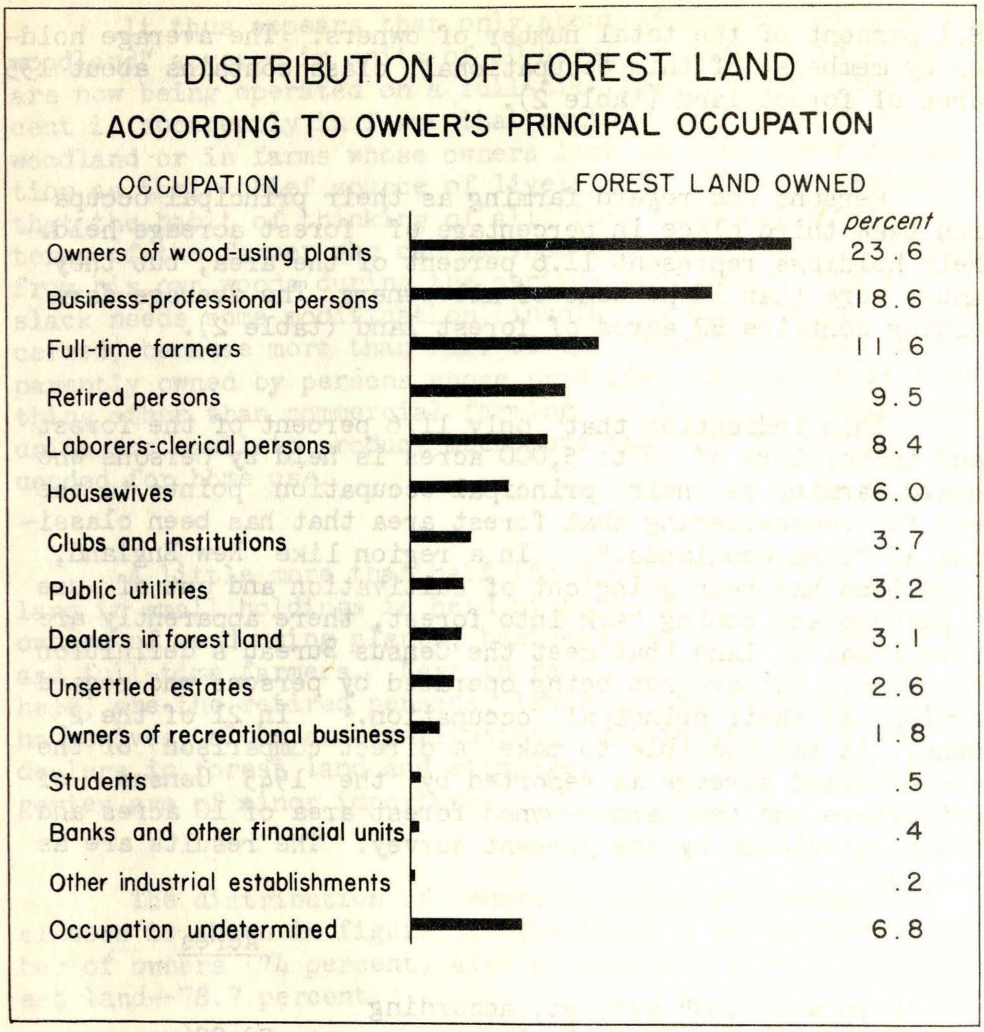

Figure 2.--Less than one fourth of the acreage is held by owners of wood-using plants.

Almost 24 percent of the forest land in these 23 towns is held by persons who make their livings by operating a sawmill or some other kind of wood-processing plant. While such owners number only 79--less than 4 percent of the total--they hold larger blocks of land than any other important class of owners. The average wood-industry holding contains 832 acres of forest land (table 2).

Business and professional people rank second in forest acreage held. They hold 18.6 percent of the land and represent

18.1 percent of the total number of owners. The average holding by members of this occupational class contains about 135 acres of forest land (table 2).

Persons who regard farming as their principal occupation take third place in percentage of forest acreage held. Their holdings represent 11.6 percent of the area, but they number more than 18 percent of all owners. The average farm holding contains 82 acres of forest land (table 2).

This indication that only 11.6 percent of the forest land in holdings of 10 to 5,000 acres is held by persons who regard farming as their principal occupation points to the need for reconsidering that forest area that has been classified as "farm woodlands." In a region like New England, where land has been going out of cultivation and out of use as pasture and coming back into forest, there apparently are large areas of land that meet the Census Bureau's definition of a farm, but are not being operated by persons who regard farming as their principal occupation.[4] In 21 of the 23 towns, it was possible to make a direct comparison of the farm woodland acreage as reported by the 1945 Census of Agriculture and the farmer-owned forest area of 10 acres and more as disclosed by the present survey. The results are as follows:

	Acres
"Farm woodland" acreage, according to 1945 Census of Agriculture	70,886
Farmer-owned forest land in holdings that contain 10 acres or more, according to present survey	32,059
Apparent acreage of "farm woodland" in farms owned by persons who do not regard farming as their principal occupation, and in farms that contain less than 10 acres of forest land.	38,827

[4] THIS IS NOT AN IMPLIED CRITICISM OF THE CENSUS DEFINITION OF A FARM. HOWEVER, IT IS A REMINDER THAT THERE ARE MANY FARM OPERATORS WHO DEPEND UPON SOME OTHER OCCUPATION FOR THEIR PRINCIPAL SOURCE OF INCOME.

It thus appears that only about 45 percent of the "farm woodland" acreage in units of 10 acres or more is in farms that are now being operated on a full-time basis. The other 55 percent is apparently in farms that contain less than 10 acres of woodland or in farms whose owners look to some other occupation as their chief source of livelihood. There is evidence that the habit of thinking of all "farm woodland owners" in terms of the farmer who can harvest commercial timber products from his own woods during the periods when other farm work is slack needs some modification (insofar as New England is concerned) because more than half of the "farm woodland" is apparently owned by persons whose principal occupation is something other than commercial farming, or is in farm woodland units too small to produce much more than the timber products needed for home use.

A little more than half (53.8 percent) of the forest land in small holdings is held by three occupational groups: owners of wood-using plants, business and professional people, and full-time farmers. Next in rank, in order of acreage held, are the retired persons, laborers and clerical people, housewives, clubs and institutions, public utilities, and dealers in forest land and stumpage. Other occupational categories are of minor importance.

The distribution of owners by principal occupation classes is shown in figure 3. The first 6 categories by number of owners (74 percent) also account for most of the forest land--78.7 percent.

Public programs of forestry education and on-the-ground technical advice for owners of small woodland holdings have, thus far, been designed chiefly to meet the needs of the farmer and the timber operator. In these 23 New England towns these two groups [5] hold only about 35 percent of the forest land acreage in small properties. It thus appears that the major effort to encourage better forestry of small forest holdings has been concentrated on about one-third of the target.

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[5] EXCLUDING THE FARMERS WHO HAVE LESS THAN 10 ACRES OF WOODLAND.

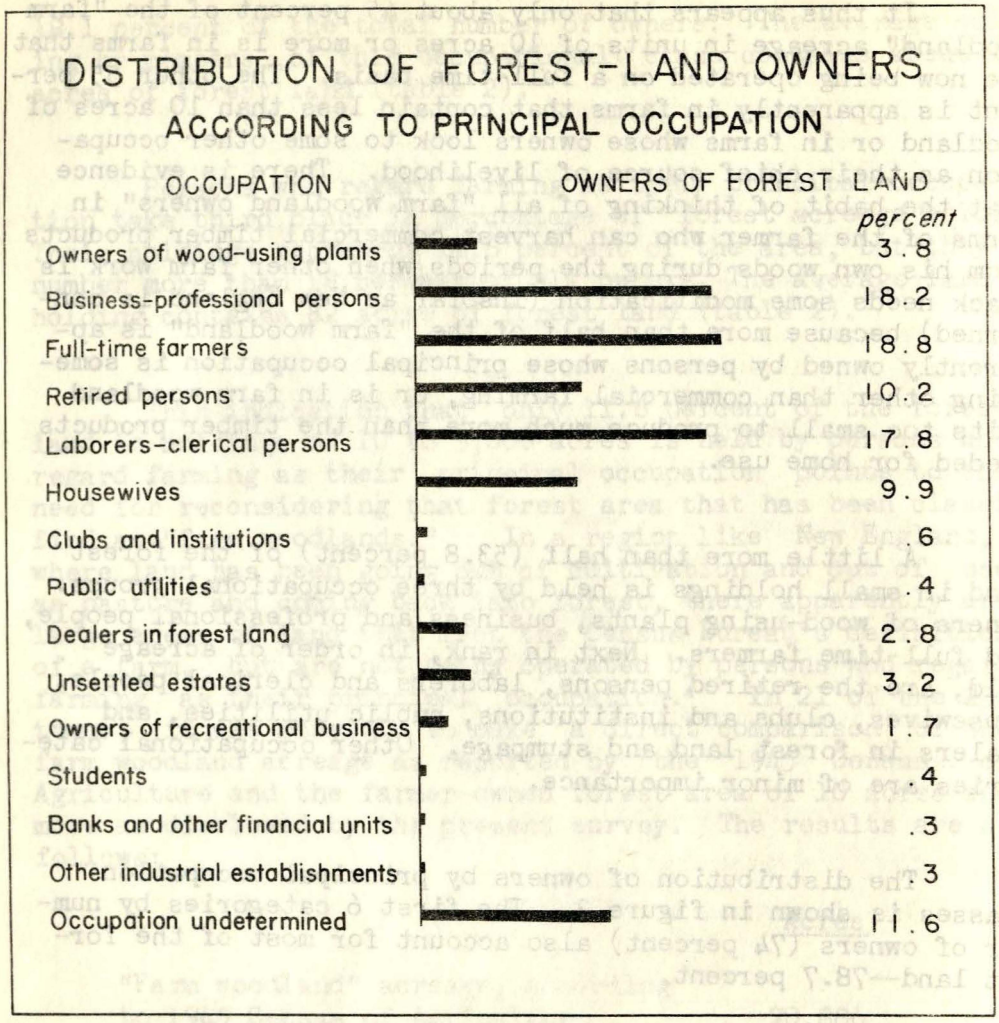

Figure 3.--More than 78 percent of the owners are in the first six occupational cetegories.

About two-thirds (64 percent) of the forest land held by the owners of wood-using plants is now in possession of those who began to acquire such land prior to 1918 (table 3). Only 5 percent of that held by the business and professional group is held by similar long-time owners. Laborers and clerical persons are also in the class of comparative late-comers.

Table 3.--Distribution of forest acreage according to periods in which the present owner first acquired forest lands, by occupational groups

Occupational group	Period of first acquisition				
	1945-48	1940-44	1930-39	1918-29	Before 1918
	Percent of acreage now held				
Owners of wood-using plants	15	8	6	7	64
Business-professional persons	10	22	32	31	5
Full-time farmers	18	15	16	24	27
Retired persons	6	7	39	9	39
Laborers-clerical persons	31	22	22	18	7
Housewives	5	26	22	34	13
Clubs and institutions	1	1	--	--	98
Public utilities	--	--	--	34	66
Dealers in forest land	5	3	46	6	40
Unsettled estates	3	--	--	6	91
Owners of recreational business	24	15	22	17	22
Students	89	11	--	--	--
Banks and other financial units	--	64	--	--	36
Other industrial establishments	--	--	21	73	6
Occupation unknown	28	10	27	24	11
All groups	13	15	22	20	30

AGE DISTRIBUTION OF THE FOREST-LAND OWNERS

The owner's age certainly has a bearing upon his attitude toward forest management. Often, in conversations with owners of small forest holdings, you hear this refrain: "Of course, timber-stand improvement investments are desirable, but why should I do any of that sort of thing on my forest land? I am now too old to get any benefit from it in my lifetime."

By means of the answers to the questionnaire and information obtained from the town assessors, it was possible to make an age-class distribution of 1,569 of the forest-land owners (table 4).

Table 4.--Age distribution of persons owning forest land in the 23 towns, by occupational group

Occupational group	Owners whose ages are--			Total owners
	Under 40	40-59	60 and over	
	Percent	Percent	Percent	Number
Owners of wood-using plants	17	63	20	30
Business-professional persons	8	77	15	354
Full-time farmers	20	53	27	311
Retired persons	--	5	95	207
Laborers-clerical persons	22	62	16	356
Housewives	4	52	44	182
Dealers in forest land	5	67	28	57
Owners of recreational business	5	76	19	21
All others	26	45	29	51
All groups	13	55	32	1,569

Owners who are 60 years of age and older make up 32 percent of the total number of owners. Except for "retired persons" and those classified as "housewives" there is no undue concentration of owners in the oldest age-group. The ownership of forest land by persons under 40 is not very common except for owners of wood-using plants, farmers, laborers, clerical persons, and those engaged in miscellaneous occupations. The business and professional people who own forest land are concentrated in the 40-59 age bracket.

Unlike individuals, the life span of corporations is not subject to physical limitations. Potentially, they can formulate and carry out policies continuously over many generations of stockholders. In these 23 towns, there are 93 corporate owners of forest land. The average holding for this group is 835 acres, but 7 of them hold more than 5,000 acres. Their total holdings add up to 28 percent of the forest land. These tend, of course, to concentrate in the towns that are most extensively forested.

Table 5.--Number of corporate owners of forest land and acreage they hold in the 23 towns

Town	Owners	Acreage held[1]		Town	Owners	Acreage held[1]	
	Number	Acres	Percent		Number	Acres	Percent
Connecticut				New Hampshire			
Salem	1	77	1	Stoddard	7	6,478	24
Chaplin	1	120	1	Danville	2	467	9
Warren	6	3,175	27	Jackson	5	940	10
Maine				Harrisville-Unity	9	3,284	12
Denmark	6	2,151	10	Fitzwilliam	10	1,738	10
Kingfield	4	8,661	38	Vermont			
Eastbrook	3	4,421	39	Hancock	5	5,548	71
Amherst	1	5,000	30	Granby	5	19,422	82
Massachusetts				Westfield	4	10,060	60
Plympton	8	748	13	Weybridge	3	802	37
Deerfield	5	462	11	Baltimore	--	--	--
Tyringham	3	784	8	Searsburg	3	3.091	50
Mount Washington	2	244	2	Total	93	77,673	28

[1]Percent of all the private forest land in the town in holdings of 10 acres and more.

OWNER'S RESIDENCE IN RELATION TO THE LOCATION OF HIS FOREST LAND

Active interest in the improvement of a forest property by its owner is hardly feasible unless the owner is able to visit it occasionally and keep himself personally informed about its condition. A large part (65 percent) of the forest-land owners in these 23 towns reside either within the town where their forest land is located or in one of the adjoining towns. Absentee ownership of these forest lands is certainly not so prevalent as might be expected (table 6).

Only 8 percent of the owners live outside New England. Another 10 percent live within New England but not in the same State in which their forest land is located.

WHY THE OWNERS HOLD THESE LANDS

The various reasons that impel persons to acquire and hold small forest-land properties range all the way from a desire for expected monetary returns to reasons that seem

Table 6.--Relationship of owner's place of residence to location of his forest land

Town	Owners residing--				Total owners in the town
	In same or adjacent town	Elsewhere in the State	In other New England State	Outside New England States	
	Percent	Percent	Percent	Percent	Number
Connecticut					
Salem	55	35	2	8	89
Chaplin	74	22	--	4	138
Warren	63	9	2	26	132
Maine					
Denmark	71	18	8	3	154
Kingfield	80	13	5	2	80
Eastbrook	72	25	3	--	62
Amherst	71	29	--	--	72
Massachusetts					
Plympton	85	14	1	--	144
Deerfield	87	11	2	--	93
Tyringham	35	15	--	50	62
Mount Washington	30	4	2	64	55
New Hampshire					
Stoddard	30	46	17	7	125
Danville	71	12	15	2	110
Jackson	69	7	20	4	71
Harrisville-Unity	63	16	17	4	275
Fitzwilliam	54	9	33	4	223
Vermont					
Hancock	59	25	3	13	32
Granby	48	22	30	--	27
Westfield	90	8	1	1	72
Weybridge	97	3	--	--	29
Baltimore	69	21	7	3	29
Searsburg	52	19	13	16	32
All towns	65	17	10	8	2,106

rather whimsical. An example of this last category is the owner who said, "I live most of the time in New York, but I bought this hundred acres and house so that I would have a place where I could step out on my front yard and yell at the top of my voice without having someone raise an objection."

Then, there is another owner who bought land and planted trees on it in the year in which his son was born. "I want to keep this land to give it to him when I die so that he will always have trees just as old as he is." Another owner in New Hampshire says that his land is worth keeping because it gives him cause to sue the railroad that passes through it for damages caused by occasional fires set by sparks from the locomotive! Many owners explain that they hold onto land because it was their ancestral home.

The main point to be remembered, in connection with the analysis of reasons that people offer as to why they hold forest land, was well stated by Professor Harry Woodworth of the University of New Hampshire some 10 years ago:

> "Speaking of rural New England, it is a rural community that has become urban in many respects. To a large extent, land as a productive factor in commercial agriculture has been outweighed and superseded by the demand for land as a consumption good, or as a producer's good for certain intangible things that are difficult to describe and measure."

The forester or the land economist who habitually thinks of landowner interests purely in terms of profit and loss must qualify this concept materially with respect to small forest holdings in New England.

The complexity of the motives for owning land make it impracticable to classify either the owners or the forest acreage in mutually exclusive categories. Many owners feel that they have two or more equally important reasons for holding small forest properties; for example, all of the owners of wood-using plants who answered the questionnaire said that they held their land for its timber values. Of these same owners, however, 7 percent said that they also held their

lands for recreational purposes, and an additional 3 percent admitted that the satisfaction of owning land was important to them.

Owners in other occupational groupings were even more prone to list two or even three principal reasons for holding their forest land, and to give no hint as to which one carries most weight. Out of the 670 questionnaire respondents who indicated their reasons for holding land, 247 offered two or more reasons. This is, of course, an indication that even the small forest-land owner understands the principle of multiple use.

The general distribution of owners according to their reasons for holding forest land is as follows:

Forest properties being held for--	Percent
Timber values	43
Recreational purposes	20
Satisfaction of owning land	15
Residential use	15
Sale later at a higher price	15
Use as pasture	8
Other uses	9

Since many of the respondents listed more than one of the foregoing reasons for holding land, the percent column necessarily adds to more than 100.

The fact that fewer than half of the owners of small forest properties list timber values as a reason for holding land drives home Professor Woodworth's point, that land in rural New England has, to a notable extent, become a consumers' good. With due regard to the factor of overlapping reasons, it seems probable that something like 40 percent of the owners of small forest holdings retain these properties and pay taxes on them because of their values as a place for recreation, as a place to live, or, for the sheer vanity of being a landowner. This poses some real problems for those who feel that such lands should make their due contribution to the commercial production of timber.

The problem is somewhat mitigated by the fact that larger holdings are more likely to be in the hands of those who are interested in timber values, although, of course, not necessarily in continuous yields in accordance with good standards of forest management. The general distribution of forest-land acreage according to owners' reasons for holding it is as follows:

Forest land being held for--	Percent of acreage
Timber values	62
Recreational purposes	23
Satisfaction of owning land	12
Residential use	9
Sale later at higher price	10
Use as pasture	6
Other uses	10

At least 62 percent of the forest-land acreage in small private holdings in these 23 towns is held for timber values. Some of this is also being held for other reasons. The acreage held primarily for recreational and residential uses and for the satisfaction of being a landowner may add up to about 35 percent of the total acreage.

The reasons offered for owning forest land differ remarkably according to the owner's occupational status (table 7).

The 100-percent interest in timber values applies only to owners of wood-using plants. Of the full-time farmers, 65 percent have a similar interest. About half of the business-professional group and half of the laborer-clerical group say they have an interest in timber. Only about one-third of all the rest of the owners emphasize this interest. Except for the owners of wood-using plants and full-time farmers, all occupational groups spread their interests pretty well across the board. With the exception of the owners of wood-using plants, a substantial percentage seem to have an eye on the speculative possibilities of forest-land ownership--the chance that they may be able to sell later at a higher price. The acreage-distribution picture is similar except for a somewhat stronger orientation toward timber values (table 8).

Table 7.--Distribution of forest-land owners according to principal reasons for holding forest land, by occupational groups

Occupational group	Total holdings	Acreage held by owners for--						
		Timber values	Recreational purposes	Satisfaction of owning land	Residential use	Sale later at higher price	Use as pasture	Other uses
	Acres	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Owners of wood-using plants	79	100	7	3	--	--	--	--
Business-professional persons	383	28	35	20	24	17	3	8
Full-time farmers	396	65	2	9	3	13	22	10
Retired persons	214	38	19	29	26	23	1	7
Laborer-clerical persons	374	48	12	20	18	11	8	9
Housewives	209	31	15	19	21	21	5	16
Others[1]	451	32	35	7	11	14	6	9
All owners	2,106	43	20	15	15	15	8	9

[1]The number of questionnaire respondents in the minor occupational groupings was too small to provide a reliable percentage distribution.

Table 8.--Distribution of forest-land acreage according to owner's reasons for holding it, by occupational groups

Occupational group	Total holdings	Acreage held by owners for--						
		Timber values	Recreational purposes	Satisfaction of owning land	Residential use	Sale later at higher price	Use as pasture	Other uses
	Acres	Percent	Percent	Percent	Percent	Percent	Percent	Percent
Owners of wood-using plants	65,734	100	1	2	--	--	--	--
Business-professional persons	51,736	49	41	14	21	10	3	5
Full-time farmers	32,561	66	2	20	3	15	16	7
Retired persons	26,648	46	30	32	19	8	1	3
Laborer-clerical persons	23,418	51	11	21	18	14	9	10
Housewives	16,859	33	17	21	21	22	2	13
Others	61,085	50	34	2	2	16	1	27
All owners	278,041	62	23	12	9	10	6	10

The distribution of small forest-property owners according to their reasons for holding such land when considered in respect to age of owner or means of acquisition shows no significant departure from the general pattern. It is, however, quite clear that the owners of larger properties tend much more strongly to consider timber values (table 9).

Large blocks of forest land held for recreational purposes are very likely to be owned by private hunting clubs or by commercial recreation establishments that cater to summer and winter vacationists.

There are, of course, many local variations of the general pattern of reasons that induce people to hold forest land. It is common knowledge that in the three northern States where good markets for forest products are available, a higher percent of the land is held for timber values. In the three southern States the forest-products markets are rather inadequate, but the demand for wooded land as a place to live while working in some nearby industrial community is strong.

It is in some ways incongruous to speak of owning forest land for residential purposes. One does not normally use more than one acre or so of land for purely residential purposes. It so happens in New England, however, that abandonment of land for agricultural uses has been in progress for a long time. Meanwhile industrial communities have been developing, road systems have been improving, and the automobile has made it feasible for many people who work in cities and towns to locate their place of residence in the country. Many of the farm units no longer used for commercial agriculture had reasonably good buildings that could be bought, along with the whole place, for a price that was much less than was required to build a poorer house in cities and villages. Other people with larger incomes found that they could afford to own a "country place" to use for a summer home--or perhaps for a hunting camp. The exodus of farmers off the land has thus been partially offset by a countermovement of urban dwellers into the countryside and into the woods. Many of their land holdings are in the units that have come down from the old pattern of farms and woodlots.

Table 9.--Distribution of forest-land owners by size-of-holding class and according to their reasons for holding forest land

Size-of-holding class (acres)	Owners	Owners holding land for--						
		Timber values	Recreational purposes	Satisfaction of owning land	Residential use	Sale later for higher price	Use as Pasture	Other uses
	Number	Percent	Percent	Percent	Percent	Percent	Percent	Percent
10-99	1,498	36	20	19	21	18	7	11
100-499	545	49	21	15	13	15	9	7
500-4,999	55	58	19	16	8	14	--	4
Over 5,000	8	92	8	--	--	--	--	8
All holdings	2,106	43	20	15	15	15	8	9

DISTRIBUTION OF THE FOREST LAND BY SIZE OF HOLDING

Size of the individual forest property is one of the factors that has an important bearing upon the problems of use for commercial timber production. However, small remnants of forest scattered hither and yonder in plots of less than 100 acres are not so important in the New England scene as might be supposed. This survey made in 23 towns, all containing a substantial area of forest land in small holdings, shows that 78.6 of the total privately owned forest acreage (disregarding that in holdings of less than 10 acres) is in those properties that contain 100 or more acres of forest land. This 78.6 percent of the acreage is held by 28.9 percent of the forest-land owners (table 10).

Going even further with this analysis, it is possible to say that more than half of the forest-land acreage (54.8 percent) is held by less than 8 percent of the forest-land owners. A systematic effort to locate and assist this comparatively small number of forest owners would go a long way toward getting better forestry on a large block of the forest land in small holdings. This general conclusion applies to farm woodlands fully as much as to small forest holdings in general. The Census of Agriculture 1945 shows that 81.4 percent of the total woodland acreage in the six New England States was in the 100-acre-and-larger farms. These farms number only 35 percent of the total of New England's farms (table 11).

Those farms that contain 260 acres or more comprise 7.6 percent of the total number of farms, but these are the ones that contain 38.4 percent of the total farm woodland acreage. Put in other words, it appears that about two-thirds of New England's farms can be written off as being of minor importance in respect to forest acreage. More than 80 percent of the farm woodland acreage is in 50,000 farms. Even half of these (according to the indications from these 23 towns) may be owned by persons who make their living in some other occupation. These facts explain why New Hampshire and Vermont, the two States that have seriously undertaken to provide technical assistance to small woodland owners, have found it necessary to extend their service to all small woodland owners and not to limit it strictly to farmer-owned forest holdings.

Table 10.--Distribution of forest-land acreage and of forest-land owners in the 23 New England towns according to size-of-holding class

Size-of-holding class (acres)	Forest land	Owners	Percentage distribution			
			By single classes		Cumulative	
			Acreage	Owners	Acreage	Owners
	Acres	Number	Percent	Percent	Percent	Percent
5,000 and over[1]	54,292	8	19.5	0.4	19.5	0.4
2,500 to 4,999	13,277	4	4.8	.2	24.3	.6
1,000 to 2,499	30,195	21	10.9	1.0	35.2	1.6
500 to 999	20,838	30	7.5	1.4	42.7	3.0
250 to 499	33,691	97	12.1	4.6	54.8	7.6
100 to 249	66,141	448	23.8	21.3	78.6	28.9
50 to 99	34,842	509	12.5	24.1	91.1	53.0
10 to 49	24,765	989	8.9	47.0	100.0	100.0
Total	278,041	2,106	100.0	100.0	--	--

[1]In these towns there were no private holdings that contained more than 12,000 acres.

Table 11.--Distribution of farm-woodland acreage and of farms in all of the New England States by size-of-farm class[1]

Size-of-farm class (acres)	Farm woodland	Farms	Percentage distribution			
			By single classes		Cumulative	
			Acreage	Farms[1]	Acreage	Farms[1]
	Acres	Number	Percent	Percent	Percent	Percent
1,000 and over	310,600	341	4.5	0.2	4.5	0.2
500 to 999	803,626	2,149	11.6	1.4	16.1	1.6
260 to 499	1,543,777	8,982	22.3	6.0	38.4	7.6
100 to 259	2,982,053	41,229	43.0	27.4	81.4	35.0
50 to 99	922,628	29,907	13.3	19.9	94.7	54.9
10 to 49	355,799	41,619	5.1	27.7	99.8	82.6
Less than 10	13,197	26,084	.2	17.4	100.0	100.0
Total	6,391,680	150,311	100.0	100.0	--	--

[1]Census of Agriculture, 1945, gives the above breakdown of woodland acreage by size-of-farm class. It does not, unfortunately, give the number of farms containing woodland by size-of-farm class. It is a fair assumption that most of the farms of 100 acres and more contain some woodland acreage. Many of the smaller ones, however, do not. The total number of farms that reported woodland acreage was 104,743.

There are, of course, rather dramatic local variations in the size-of-holding pattern. The percentage distribution of forest land acreage in each of the 23 towns covered by the present survey is shown in table 12.

Table 12.--Distribution of forest land acreage in the various towns by size-of-holding class

Towns	Acres of forest in the town[1]	Size-of-holding classes (in acres)							
		10 - 49	50 - 99	100 - 249	250 - 499	500 - 999	1,000 - 2,499	2,500 - 4,999	5,000 - 50,000
	Acres	Percent of acreage							
Connecticut									
Salem	7,245	16	25	33	26	--	--	--	--
Chaplin	11,368	19	19	25	5	15	17	--	--
Warren	11,713	14	18	32	12	--	24	--	--
Maine									
Denmark	21,430	7	14	26	19	10	24	--	--
Kingfield	22,587	4	7	11	12	9	--	20	37
Eastbrook	11,219	7	9	17	2	25	40	--	--
Amherst	16,714	5	6	16	12	8	7	16	30
Massachusetts									
Plympton	5,577	42	15	38	5	--	--	--	--
Deerfield	4,122	36	28	36	--	--	--	--	--
Tyringham	10,196	2	13	38	23	11	13	--	--
Mount Washington	10,612	7	7	18	22	--	20	26	--
New Hampshire									
Stoddard	27,612	4	6	21	7	11	10	--	41
Danville	5,029	43	20	18	19	--	--	--	--
Jackson	9,480	4	18	27	33	18	--	--	--
Harrisville-Unity	26,848	10	22	37	16	5	10	--	--
Fitzwilliam	18,331	15	24	34	9	3	15	--	--
Vermont									
Hancock	7,724	3	11	16	4	--	--	--	66
Granby	23,596	--	1	9	2	7	5	--	76
Westfield	16,715	3	6	26	5	--	--	20	40
Weybridge	2,179	19	8	30	12	31	--	--	--
Baltimore	1,519	30	40	30	--	--	--	--	--
Searsburg	6,225	6	6	16	31	8	33	--	--
All towns	278,041	9	12	24	12	7	11	5	20

[1] That is, the acreage in private ownership in properties that contain 10 or more acres of forest land.

Towns with the higher percentage of land in larger holdings include Kingfield and Amherst in Maine; Stoddard in New Hampshire; and Hancock, Granby, and Westfield in Vermont. All of these are on the fringe of the extensive forest area. Towns that have a high proportion of the smaller holdings are likely to be highly agricultural, adjacent to one of the urbanized areas, or particularly desirable for scenic and recreational vlaues.

FINANCIAL RETURNS AS A FACTOR IN OWNERSHIP OF SMALL FOREST PROPERTIES

The questionnaire that was sent to each owner asked him to indicate whether he had harvested any forest products from the property in the past 10 years--either for sale or for his own use--and whether he expects to make such harvests in the next 10 years.

According to the questionnaires that were returned, only about 53 percent of the owners of small forest properties in the 23 towns had harvested forest products from their land in the 10 years prior to 1948. Occupational status and the size of holding seem to have some bearing upon the proportion of owners who harvest forest products:

Occupational group	Percent of owners who harvested
Owners of wood-using plants	72
Business-professional persons	41
Full-time farmers	72
Retired persons	55
Laborer-clerical persons	62
Housewives	40
Others	41
Average	53
Size-of-holding class	
500 acres or more	83
250 to 499	63
100 to 249	55
50 to 99	54
10 to 49	47

The percentage of owners who expect to harvest products from their properties in the next 10 years is considerably less than those who have made a harvest in the past 10 years: 44 percent as against 53 percent.

Occupational group	Percent of owners who expect to harvest in next 10 years
Owners of wood-using plants	77
Business-professional persons	37
Full-time farmers	63
Retired persons	39
Laborer-clerical persons	36
Housewives	24
Other	46
Average	44

Past experience and future expectations seem to go hand-in-hand. The owners of wood-using plants and the full-time farmers look forward with substantial confidence. Other occupational groups take a rather dim view of the possibilities for harvests of forest products from their own forest holdings. One principal reason is, of course, that many of their properties have been virtually stripped of desirable growing stock.

It is clear that a great many of the small woodland owners hold their properties over long periods of time without cash income from the sale of forest products or even income in the form of forest products harvested for the owner's personal use. In spite of this, only 20 percent of the owners were willing to say that their forest property is a financial liability. Some 19 percent gave no indication of their feelings about the financial status of their forest properties. It is entirely possible that many of these people felt that the question of whether the property is a financial asset or liability was not of primary importance to them. At any rate, this question was conspicuously left unanswered by many respondents. Those who took a positive stand by saying that their forest property is a financial asset made up 61 percent of the forest-land owners.

One more strong piece of evidence that financial inducements are not the all-important factor in the holding of

small forest properties in New England is the extremely low rate of tax delinquency. In the 23 towns that were covered in this survey, only 1.2 percent of the forest-land owners are now delinquent in the payment of their taxes.[6] The acreage held by these people is even less: 1.1 percent of the total. The 39 percent of the forest-land owners who do not look on their property as a financial asset apparently find other values in it that are sufficient to justify continuous payment of the taxes.

THE MAJOR CONCLUSION

The fact that the owners of more than three-fourths of the forest acreage in 23 New England towns (scattered throughout the areas where small holdings predominate) have major occupational interests that do not require the use of their forest land for timber production goes a long way toward explaining the lack of concern about the management of small woodlands. The majority of these people look elsewhere for their principal source of livelihood. The owning of forest land is somewhat incidental to their main occupation.

The majority of these small woodland owners are, of course, aware that their land has timber values. About 62 percent of the acreage is held by persons who say that timber values are of importance to them. The other 38 percent of the acreage is held by persons who do not include timber values at all in their reasons for holding forest land.

These facts present both a challenge and an opportunity.

The challenge calls for extending the scope of public and private forestry services and educational effort so that they will more adequately reach those persons whose occupations lie outside the wood-using industries and full-time farming. It calls for added attention to laws concerning taxation and cutting practices. The recent 1949 tax law in

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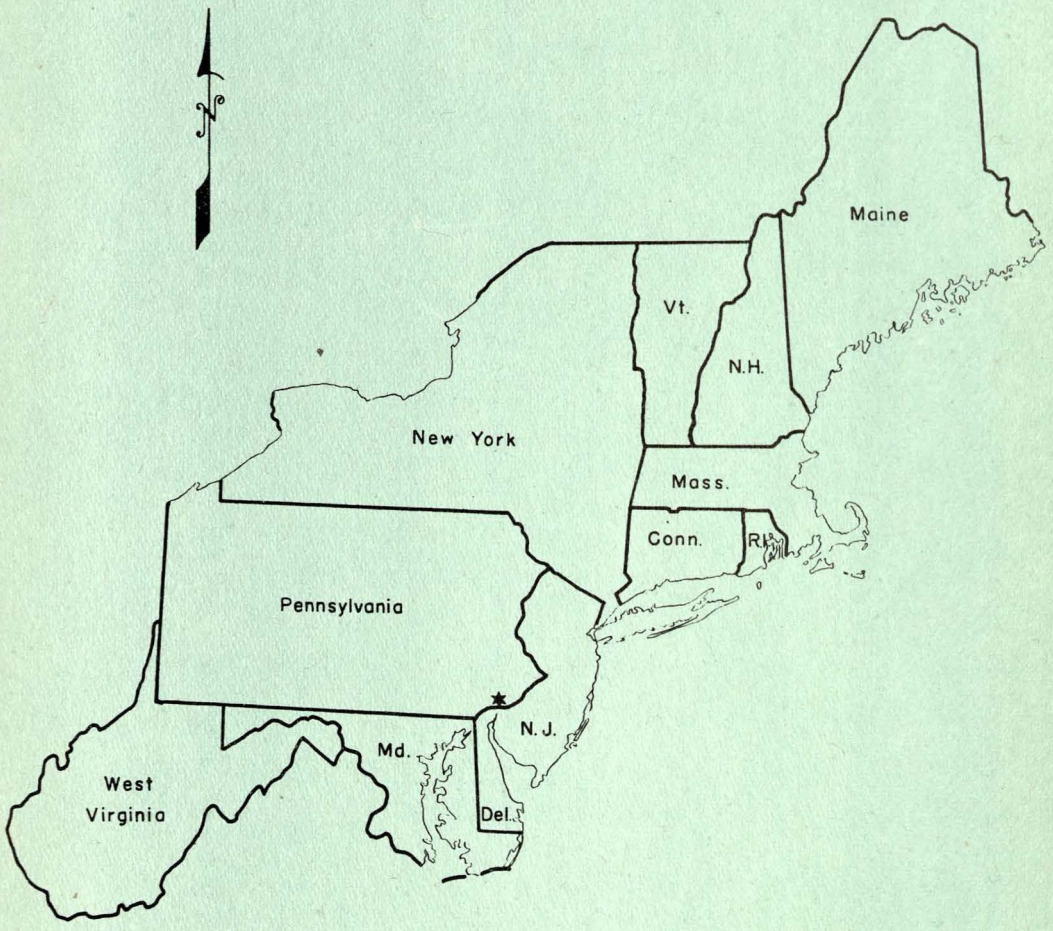
[6] IT IS COMMON KNOWLEDGE THAT THERE IS GENERALLY VERY LITTLE LAND-TAX DELINQUENCY IN NEW ENGLAND.

New Hampshire is aimed at the problem. In addition, woodland-owner cooperatives and agencies like the New England Forestry Foundation, Connwood Incorporated, and private consulting foresters could probably assume a much more prominent role in providing technical services for many of these small woodland owners who find their own time and effort too fully engaged to permit them to give much attention to woodland management.

The opportunity stems from the fact that a considerable part of the land is held by persons who are apparently under no heavy financial pressure to liquidate the timber values. Many of these properties are not being operated because the owners object to the kind of timber cutting that they would normally expect from a commercial sale of their timber. The opportunity lies in showing that good cutting practices can be made to harmonize with the nontimber values that the owners wish to preserve.

There is also opportunity in the fact that 62 percent of the land is held by persons who recognize timber values as being important. Here is a basic interest to build upon. These people need to become convinced that the timber values, in which they apparently put some stock, are important enough to demand some of the same care and intelligence that is commonly bestowed on the culture of other soil crops. So far this idea has not permeated very far. If it had, more than 6 percent of the forest acreage in small holdings would show evidence of good cutting practices.



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